



Relationship between strategic human resource management and firm performance

A contingency perspective

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Abstract

Purpose – Previous studies suggest that strategic human resource management (SHRM) is beneficial to firm performance. This study seeks to investigate the moderating effect of product market strategy (PMS), one of the contextual factors, on the relationship between SHRM and firm performance.

Design/methodology/approach – This study conducted a survey on 235 Taiwanese firms and hierarchical regression analysis was performed.

Findings – The results failed to support the “universalistic” SHRM perspective. Only the interaction between an innovative PMS and SHRM exerted a significant effect on firm performance, which supporting the argument of the “contingency” perspective. The findings of this study confirmed the validity of the contingency model in an Asian society.

Research limitations/implications – Different from most previous studies conducted in a Western context, this study examined the data of Taiwan, and thus examined a very different cultural and institutional environment. Although this study obtained valuable results, the limitations of the subjective data, number of measurement items and the cross-sectional design were discussed. In a future study, more work on revealing the influence of other unexplored factors to better understand the determinants of firm performance should be done.

Practical implications – Coping with innovation needs, the degree to which traditional human resource management (THRM) is transformed into SHRM determines how well a firm is able to sustain and enhance growth. This will enable firms to keep pace with the rapid environmental changes associated with globalization.

Originality/value – Investigates the moderating effect of PMS on the relationship between SHRM and firm performance in a Taiwanese context.

Keywords Human resource management, Organizational performance, Taiwan

Paper type Research paper

1. Introduction

Rapid environmental change, globalization, competition to provide innovative products and services, changing customer and investor demands have become the standard backdrop for organizations. To compete effectively, firms must constantly improve their performance by reducing costs, enhancing quality, and differentiating their products and services.



Recent studies have examined strategic human resource management (SHRM) as a means of enhancing organizational competitive advantage. Scholars and practitioners have widely adopted this approach to organization strategy planning. The underlying assumption of SHRM is that firm performance is influenced by a set of HRM practices. This assumption has been supported by recent empirical evidence (Arthur, 1994; Huselid, 1995; MacDuffie, 1995). However, important questions remain, including whether SHRM guarantees positive firm performance outcome, the effect of different levels of SHRM implementation on firm performance, and the influence of the market environment in moderating the relationship between SHRM and firm performance.

A critical unresolved debate involved whether a universally superior approach existed for managing human resources. Some scholars suggested that such an approach existed (Huselid and Becker, 1996; Pfeffer, 1998). Meanwhile, others noted that the effectiveness of human resource management practices depends on the specific organizational and environmental context (Mayer *et al.*, 1993; Venkatraman, 1989). Accordingly, a better understanding of the role of the implementation of human resources management in creating and sustaining organizational performance and competitive advantage should be achieved through further theoretical development and empirical evidence.

This study focused on Taiwanese firms, which are in one of the most significant emerging markets in the world. Taiwan is currently experiencing a critical industrial transformation. Taiwan joined the World Trade Organization (WTO) in 2002. Additionally, owing to its lower labor costs and strong potential for the development of a high technology industry, China gradually took away the traditional advantages of Taiwan in manufacturing. Both factors intensified the competitive environment for Taiwanese firms. Firms must increase their access to markets and knowledge by correctly reading changes in external markets. Consequently, the main purpose of this study is to examine the moderating effect of product market strategy (PMS), a key contextual factor, on the relationship between SHRM implementation and firm performance in Taiwan.

2. Theoretical background and hypothesis

2.1. SHRM

Recent theoretical works on business strategy have indicated that firm competitive advantage could be generated from firm human resources (HR). According to the resource-based view (Barney, 1986), the firm could develop sustained competitive advantage through creating value in a manner that is rare and difficult for competitors to imitate. Traditional sources of competitive advantage, such as natural resources, technology and economics of scale have become increasingly easy to imitate. The concept of HR as a strategic asset has implications for this issue. HR is an invisible asset that creates value when it is embedded in the operational system in a manner that enhances firm ability to deal with a turbulent environment.

2.2. Development of SHRM

SHRM has grown considerably in the last 15 years. Schuler *et al.* (2001) described the evolution of SHRM from personnel management in terms of a two-phased transformation, first from personnel management to traditional human resource management (THRM), and then from THRM to SHRM.

To improve firm performance and create firm competitive advantage, firm HR must focus on a new set of priorities. These new priorities are more business and strategic oriented and less oriented towards traditional HR functions such as staffing, training, appraisal and compensation. Strategic priorities include team-based job designs, flexible workforces, quality improvement practices, employee empowerment and incentive compensation. SHRM was designed to diagnose firm strategic needs and planned talent development which is required to implement a competitive strategy and achieve operational goals (Huselid *et al.*, 1997).

2.3. Definition of SHRM

Despite the increasing attention paid to SHRM, the term remains unclear. Some scholars have described SHRM as an outcome, others have described it as a process, and others have considered it a combination of process and outcome.

As an outcome, Wright and McMahan (1992) considered SHRM “the pattern of planned HR deployments and activities intended to enable a firm to achieve its goals”. Similarly, Wright and Snell (1991) considered SHRM to be “organizational systems designed to achieve sustainable competitive advantages through people”. As a process, Ulrich and Lake (1991) described SHRM as a process of linking HR practices to business strategy. Moreover, Bamberger and Meshoulam (2000) argued that SHRM is a competency-based approach to personnel management that focuses on the development of durable, imperfectly imitable, and non-tradable people resources. Considering both process and outcome together, Truss and Gratton (1994) defined SHRM as the linkage of HR functions with strategic goals and organizational objectives to improve business performance and cultivate an organizational culture that fosters innovation and flexibility. However, in the absence of a consistent definition, scholars broadly agree that the central feature of SHRM involves designing and implementing a set of internally consistent policies and practices to ensure that firm human capital contributes to achieving business objectives (Gratton and Hope-Hailey, 1999; Jackson and Schuler, 1995).

The degree to which HRM may be considered a strategy is determined by the various factors involved. This study summarized these factors based on previous works as follows. First, as Welbourne and Cyr (1999) suggested, HR professionals play an important part in strategy formulation since they develop policies and procedures to match the business strategy, and thus directly influence the development of the business. Additionally, they may bring critical resources to enhance the departmental ability to implement HR practices. Second, strategically impacting firm performance requires aligning the HR system (internal fit) with the operating and strategic goals (external fit). This alignment should establish a closer relationship between HR and other functions. Third, the specificity and formality requirements of HRM planning and the extent of line manager participation in HRM activities (Huang, 1998) are potential influences on SHRM implementation.

Based on the broad agreement among the central features of SHRM and the determinants of HRM as strategic, this study defined SHRM as the degree of participation in core decision-making and partnership played by HRM departments, and the specificity and formality that HRM departments require in planning and implementation, all of which are designed to ensure that firm human capital contributes to achieving firm business goals.

2.4. Relationship between SHRM and firm performance

Numerous researches have debated that SHRM has been consumed with two competing normative schools existing: universalistic and contingency. Universalistic scholars argued that many HR practices are consistently better than comparative practices. They claimed that all organizations, regardless of size, industry, or business strategy, should adopt these so-called “best practices” school (Arthur, 1994; Delery and Doty, 1996).

However, whether SHRM should always be positively related to firm performance remains uncertain. Contingency scholars hold different points of view and argued that the assumptions underlying the strategy-performance link are applicable only under high external fit conditions (Bamberger and Meshoulam, 2000), termed the “best fit” school (Boxall and Purcell, 2000).

2.4.1. Universalistic perspective. The universalistic scholars considered SHRM to positively influence firm performance (Martell and Carroll, 1995). They assumed that SHRM could help firms improve their human resources cost benefits, promote operating efficiency, increase innovation and revolution ability, and increase organizational performance benefits (Dyer, 1983). The most influential best practice set is associated with the 16 practices of Pfeffer (1994); more recently, Pfeffer (1998) summarized these 16 practices into seven practices: including employment security, selective hiring, self-managed team, provision of high pay contingent on company performance, extensive training, reduction of status differences and sharing information. Besides, Cook and Ferris (1986) asserted that SHRM is an efficient function that copes with environmental changes. Gomez-Mejia *et al.* (1995) indicated that SHRM directly and indirectly benefits companies because it changes passivity into initiative, transmits organizational goals clearly and encourages the involvement of line-managers. Welbourne and Andrews (1996) drew from population ecology theory to argue that SHRM positively influences firm performance because it generates structural cohesion, an employee-generated synergy that propels a company forward, enabling the firm to respond to its environment while still moving forward.

Numerous testimonials regarding the value of SHRM have appeared during the past decade (Huselid, 1995; Jackson and Schuler, 1995). Misa and Stein (1983) found that the strategic orientation of HR in high-productivity firms differed obviously from that in low-productivity firms. Cook and Ferris (1986) investigated the HRM practices of firms in declining industries. They found that most high performance firms adopted SHRM measures. Conversely, low performance firms tended to employ conventional methods. Huselid (1993) found a positive relationship between better HRM practices and firm financial performance. Therefore, according to the evidence and adopting a universalistic perspective, we hypothesize:

- H1.* Firms that adopt SHRM practices significantly outperform those that adopt THRM practices.

2.4.2. Contingency perspective. In contrast with universalistic thinking, contingency scholars argued that HR strategy would be more effective only when appropriately integrated with a specific organizational and environmental context. Additionally, contingency arguments are more complex than universalistic arguments because they imply interactions rather than the simple linear relationships involved in the universalistic perspective (Venkatraman, 1989).

The contingency perspective argues that the relationship between the independent and the dependent variables differs when the contingency variable is added, and most studies are concerned with the meaning of internal and external fit and with how to achieve them, such as the fitness of HR practices and various organizational and environmental factors. For example, some scholars have attempted to demonstrate how certain HR practices are consistent with different strategic positions, and how these practices relate to firm performance (Schuler and Jackson, 1987). Moreover, other scholars have examined the effects of person-environment fit (Werbel and Demarie, 2001), executive controls (Snell and Youndt, 1995) and local environment, unions, resource dependency and integration, administrative heritage and competency (Beechler and Yang, 1994).

2.4.3. Moderating effect of PMS. The concept of “fit” is central in the field of strategic management. Researchers have focused on the fit between strategy and other constructs, including the strategy and required role behaviors of employees (Schuler, 1989), strategy and HRM practice, strategy and HRM philosophy, strategy and business life cycle (Schuler, 1989) and strategy and organizational culture (Goll and Sambharya, 1995). This concept also includes managerial characteristics and environmental factors. Considerable empirical support exists for the effect of strategic fit on organizational outcomes.

In SHRM, internal fit and external fit are the two main research streams. Scholars have long held that, in addition to internal organization characteristics, environmental characteristics also significantly influence firm performance (Pfeffer and Salancik, 1978), since the external environmental characteristics represented customer demand and the nature of market competition, which are important determinants of firm performance.

The market environment has been extremely turbulent during the past decade, and to maintain continuous success in the face of global competition, firms must identify and analyze environmental characteristics and develop strategies to meet changing market needs. Therefore, this study focuses on the fitness of HRM and the environmental characteristics of Taiwanese firms. To better present the idea of environmental characteristic, this study adopted PMS as the research variable; since PMS reflects customer needs and market nature, organizations generally develop PMS based on their understanding of the external market.

This study used the strategic typology widely cited from the formulation of Schuler and Jackson (1987) as a framework. The three types of strategy are cost-reduction, quality-enhancement and innovation. The cost-reduction strategy refers to efforts to produce goods and services more cheaply than competitors. It stresses efficient scales, minimizing expenses and supplying a standard for reducing costs. The quality-enhancement strategy refers to the production or delivery of the highest possible quality of goods and services. Quality is a significant aspect of the total process. The innovation strategy refers to the design and production of complex and rapidly changing products or services that differ from those of competitors (Miler, 1986).

The SHRM-PMS fit is expected to influence organizational outcomes. Beaumont argued that SHRM is a better approach for modern businesses, and that the traditional concerns and orientations of the HR function do not respond adequately to fundamental environmental changes, particularly in product market conditions, under

different PMS, and thus firms should adjust their HRM approach to facilitate the reaching of specific goals (Schuler, 1989). Therefore, this study predicts that when a firm employs different PMS, such as a cost-reduction strategy, quality-enhancement strategy or innovation strategy, then implementing SHRM does not always improve firm performance. For example, firms that adopt an innovation strategy might benefit more from implementing SHRM than firms that adopt two other strategies, because SHRM facilitates cooperative, interdependent and long-term oriented behaviors. SHRM also fosters the exchange of ideas and risk taking, which are critical elements for new product and service development (Schuler, 1989). Based on the above discussion, the second hypothesis thus is proposed:

- H2.* PMS will moderate the relationship between SHRM implementation and firm performance. Firms with innovative strategies that implement SHRM will outperform firms that employ other strategic orientations.

3. Methodology

3.1. Sample

The sample in this study was obtained from the database of the China Credit Information Service Company, which comprises 23,882 Taiwanese companies. Firms with fewer than 100 employees were excluded from the analysis because companies in Taiwan mostly are small-medium size with immature human resources management practices. Similar to other related studies performed in Asia (Lau and Ngo, 2001; Wan *et al.*, 2002) 50 employees were used as a cut off point for sample selection. Altogether, 1,510 questionnaires with a cover letter describing the nature of the survey were sent to the head of human resources of each firm. A total of 380 questionnaires were returned, for a response rate of 25 percent, exceeding that of other similar studies, which achieved response rates of 21, 20 and 13.8 percent (Delery and Doty, 1996; Lau and Ngo, 2001; Orlando and Johnson, 2004). A comparison of respondent and non-respondent firms revealed no significant differences in size and industry type.

The average firm age in the sample was 28 years. The number of employees ranged from 11 to 14,438 with a median of 376 and a mean of 984. A total of 116 (31.02 percent) firms had 249 employees or fewer, 102 (27.27 percent) firms had between 250 and 499 employees, 67 (17.91 percent) firms had between 5,000 and 999 employees, 47 (12.57 percent) firms had between 1,000 and 2,499 employees, and 42 (11.23 percent) firms had over 2,500 employees.

3.2. Measurement

3.2.1. *Independent variables.* 3.2.1.1. SHRM. To differentiate the SHRM implementation level, a survey was conducted based on the definition of SHRM used in this study. Respondents were asked to assess the degree of SHRM in their organization using the following 11 items:

- (1) Is there a personnel or HR manager in your company?
- (2) Does the HR manager attend staff meetings or other equivalent meetings?
- (3) From which stage is the HR manager involved in business strategy planning?

(4) Does the company have an HR strategy?

(5-11) Does the company have HR policies for compensation, staffing, training and development, employee communication, equal opportunity, flexible work schedules and management development?

Items 1 and 2 were coded as yes/no questions (yes = 1, no = 0), items 3-11 were three-point Likert-type questions as follows: item 3 (from the beginning stage = 3, from the counseling stage = 2, from the implementation stage = 1), items 4-11 (yes, with documentation = 3, yes, without documentation = 2, no = 1). The degree of SHRM implementation increased with the score; meanwhile, the degree of SHRM implementation, or, THRM decreased with decreasing score.

This study conducted the reliability analysis for testing the internal consistency of the above items. The Cronbach alpha was 0.84, which suggested that the questionnaire had high reliability. The 235 samples were classified into two groups using cluster analysis, with the result being listed in Table I.

The average Cluster 1 scores were lower than those for Cluster 2. Cluster 1 was termed the THRM type, and included 131 samples. This HR type focused on traditional HR functions, was related less to business strategy planning activities, and had lower HR strategy or policy formalization, and lower internal and external fit among HR practices and with business strategy. Cluster 2 was termed the SHRM, and included 189 samples. This HR type focused less on traditional HR functions, was more closely

Items	Cluster1: THRM N = 131		Cluster2: SHRM N = 189		F
	Mean	SD	Mean	SD	
1. Is there a personnel or HR manager in your company?	0.75	0.43	0.93	0.24	22.70**
2. Is the HR manager attending the staff meeting or equivalent organization?	0.66	0.47	0.96	0.18	61.10**
3. From which stage the HR manager involved in the business strategy planning?	2.06	0.56	2.65	0.47	101.30**
4. Does your company have the HR strategies?	1.82	0.70	2.77	0.44	220.03**
5. Does your company have the HR policies in compensation?	2.67	0.67	2.95	0.22	27.94**
6. Does your company have the HR policies in staffing?	2.36	0.80	2.93	0.27	79.66**
7. Does your company have the HR policies in training and development?	2.48	0.74	2.93	0.29	56.17**
8. Does your company have the HR policies in employee communication?	1.63	0.73	2.53	0.57	149.62**
9. Does your company have the HR policies in equal opportunity?	1.45	0.58	2.43	0.65	190.61**
10. Does your company have the HR policies in flexible working schedules?	1.40	0.59	2.51	0.68	227.76**
11. Does your company have the HR policies in management development?	1.45	0.68	2.60	0.57	268.74**

Table I.
The clustering analysis
results for human
resource management

Note: ** $P < 0.01$

related to business strategy planning activities, had higher HR strategy or policy formulation, and also had higher internal or external fit with the business strategy. To test the appropriateness of the above grouping, discrimination analysis was conducted, and found 98.1 percent correct classification of the original grouped cases.

3.2.1.2 PMS. For capturing the holistic characteristics of the product market, respondents were asked to evaluate their PMS using the following questions, which are based on the typology of the competitive strategy of Schuler and Jackson (1987). Based on the competitiveness perspective:

- (1) How important is the price of your products or services in your target market?
- (2) How important is the quality of your products or services in your target market?
- (3) How important is innovation in your products or services in your target market?

The scores was assigned as follows: 5 indicated “very important”, 3 indicated “slightly importance” and 1 indicated “not important”. Higher score indicates stronger emphasis on the specific PMS.

3.2.2. *Dependent variable.* 3.2.2.1. Firm performance. Demonstrated financial influence would elevate SHRM to the highest level of organizational power. However, empirical research is likely to encounter similar difficulties in implementing research findings in practical applications. Fortunately, in this field, a potential advantage is that most existing studies focus directly on the impact of HR decisions on performance outcomes that are clearly meaningful and relevant to practitioners, such as stock performance, productivity, profitability, quality and organizational survival rate.

This study defined firm performance as profitability during the past three years. The respondents measured profitability by evaluating the gap between profits and costs. Two opposite poles on a continuum (1-5) were presented. Respondents responded by selecting a number between 1 (resulted in a big loss) and 5 (generated large profits). A higher rating indicated better performance.

Owing to the difficulties in obtaining public financial data for Taiwanese companies, this study adopted a self-evaluation approach. Although self-reporting tends to be biased, Dess and Robinson (1984) suggested that, in the absence of objective data, self-reporting measures constitute an acceptable substitute and are equally reliable. Research has also demonstrated that self-reported firm performance measures are positively related to objective firm performance measures, with a correlation of 0.40 (Powell, 1992). Additionally, the comparison of cross-industry organizational performance is influenced by external economic factors, subjective evaluations may be even more appropriate than objective measures in this study (Bamberger and Meshoulam, 2000).

3.2.3 *Control variables.* Other variables might also influence the relationship between SHRM implementation and firm performance. This study followed previous works by controlling four main variables: firm size, firm age, industry type and market condition, to prevent potential bias in profit forecasting.

Firm size was measured as number of employees while firm age was calculated by subtracting the year of company establishment from 2002. Because both exhibit a skewed distribution, they were transformed into a natural size and age log to avoid violating the normality assumptions required by regression analysis. Industry type was classified using two dummy variables, namely manufacturing sector and service

sector. Market condition described the development of the market targeted by the firm. Market condition was classified into three categories, growing market, stable market and declining market.

4. Results and findings

4.1. Results

Table II lists the descriptive statistics, including the mean, standard deviation and zero order correlation for all variances. SHRM and PMS implementation were the independent variables in this study. Profitability was the dependent variable, while firm size, firm age, industry type and market conditions were the control variables. The interaction terms represented the variance explained by the interaction of X (SHRM) with Z (PMS) beyond the direct effects of the independent variables upon the dependent variable. The following equation conceptualized this description:

$$Y = \beta_0 + \beta_1 X + \beta_2 Z + \beta_3 XZ + \varepsilon.$$

Each interaction term used SHRM as one of the interactive variables. However, there is little likelihood of the result being affected by multicollinearity because the interaction terms were entered in separate equations. Additionally, due to the multiplicative effect in high levels of multicollinearity, this study created the interaction terms by subtracting the mean from each of the original multipliers (Southwood, 1978). Following the transformation, each VIF coefficient was reduced to approximately 1.10, demonstrating that multicollinearity was not the problem.

Hierarchical regression analysis was employed in this study. This form of analysis is frequently used in research on human resource management (Bae and Lawler, 2000). The hierarchical regression analysis generated four models. Table III lists the results.

In Model 1, the control variables, including firm size, firm age, industry type and market condition, were entered. The independent variables SHRM and PMS, including the cost reduction strategy, quality enhancement strategy and innovation strategy, were then entered (Model 2). Finally, the interaction terms, including cost strategy with SHRM, quality strategy with SHRM and innovation strategy with SHRM, were entered (Model 3, 4 and 5). All models were statistically significant at the 0.001 level. However, Model 5 provided the best explanation of firm performance variance; it had an adjusted R^2 of 0.208 and an F value of 7.163.

4.2. Analysis of findings

Generally, the findings of this study are consistent with the stream of research and theory proposing the “best fit” model, and are inconsistent with the “best practice” model. This suggests that a set of best HRM practices exists for all organizations. As can be seen from these results, this study failed to find a significant direct impact for SHRM on firm performance that would support $H1$. That is, strategic HRM is not always a better approach for organizational performance than the THRM approach. However, this study successfully confirmed the second hypothesis, that PMS moderated the relationship between SHRM implementation and firm performance.

The results showed that a cost reduction strategy is significantly and negatively related to firm performance. That is, profitability declines when the firm focuses on being the lowest price leader. Additionally, the quality enhancement strategy was significantly and positively related to firm performance. That is, profitability grows

Variable	Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Profitability	3.759	0.934	1.000												
2. Natural log firm size	6.273	1.125	0.217**	1.000											
3. Natural log firm age	3.226	0.612	0.030	0.088	1.000										
4. Manufacturing firms	0.366	0.483	0.135*	0.010	-0.164**	1.000									
5. Service firms	0.123	0.330	-0.008	0.146**	0.206**	-0.243**	1.000								
6. Market	2.328	0.767	0.424**	0.115*	-0.160**	0.212*	-0.044	1.000							
7. Cost	2.694	0.523	-0.199**	-0.133*	-0.091	0.040	-0.077	-0.015	1.000						
8. Quality	2.923	0.267	0.099	-0.045	-0.057	-0.032	-0.180**	0.129*	0.118*	1.000					
9. Innovation	2.579	0.589	0.082	0.050	-0.092	-0.147**	0.155**	0.122*	-0.006	0.224**	1.000				
10. SHRM	0.583	0.494	0.147*	0.076	0.044	-0.093	0.019	0.183**	0.007	0.102	0.178**	1.000			
11. Cost SHRM*	0.004	0.265	0.018	0.089	0.094	-0.076	-0.006	-0.071	-0.156**	-0.011	0.024	-0.017	1.000		
12. Quality SHRM*	0.006	0.135	-0.080	0.042	0.033	-0.059	0.066	-0.042	-0.008	-0.349**	0.019	0.022	0.096	1.000	
13. Innovation SHRM*	0.007	0.295	0.096	-0.029	0.012	0.142*	-0.118*	-0.020	0.031	0.002	-0.218**	-0.063	-0.029	0.158**	1.000

Notes: * Correlation is significant at the 0.05 level (two-tailed), ** Correlation is significant at the 0.01 level (two-tailed)

Table II.
Descriptive statistics and correlation

Variable	Model 1	Model 2	Model 3	Model 4	Model 5
(Constant)	1.498	1.007	1.005	1.155	0.943
Natural log firm size	0.112	0.096	0.096	0.097	0.096
Natural log firm age	0.138	0.119	0.118	0.117	0.111
Manufacturing firms	0.120	0.180	0.181	0.178	0.157
Service firms	0.122	0.111	0.112	0.079	0.129
Market	0.499**	0.390**	0.390**	0.385**	0.395**
Price	–	–0.328*	–0.327*	–0.333*	–0.328*
Quality	–	0.478*	0.478*	0.427*	0.456*
Innovation	–	0.070	0.070	0.079	0.111
SHRM	–	0.131	0.132	0.145	0.150
Price SHRM*	–	–	0.007	–	–
Quality SHRM*	–	–	–	–0.539	–
Innovation SHRM*	–	–	–	–	0.411*
R^2	0.175	0.227	0.227	0.232	0.242
R^2 change	0.175**	0.052*	0.000	0.006	0.016*
Adjusted R^2	0.157	0.196	0.192	0.198	0.208
F-statistic	9.706**	7.330**	6.568**	6.785**	7.163**

Table III.
Hierarchical regression
analysis results

Notes: Dependent variable = firm performance (profitability); value in each model is *b* coefficient;
* $p < 0.05$, ** $p < 0.01$

when a firm focuses on producing the best quality product or service. However, most important is the interactive effect between innovation strategy and SHRM, because a positive relationship exists along with significant variance in firm performance. This is not evident in the other two interaction terms. Given a lack of innovation in the market environment, SHRM clearly has little impact on profitability.

This study plotted the data for a significant innovation strategy and SHRM interaction (as shown in Figure 1). Clearly, firms that implement SHRM will perform better in an innovation oriented market environment. However, under the same environment, firms that implement THRM will perform poorly. This situation may occur because SHRM promotes team-based job designs, flexible workforces, employee empowerment and incentive compensation, and so on, which are essential for facilitating innovation in organizations.

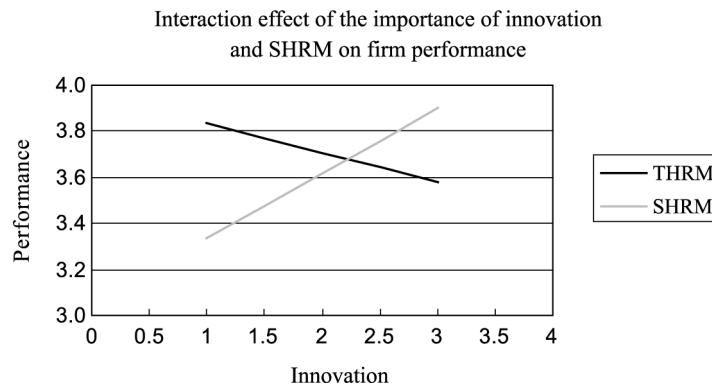


Figure 1.
Interactive innovation and
SHRM implementation
effect on firm performance

5. Conclusion and discussion

This study examined the impact of PMS on the relationship between SHRM and firm performance. The findings of this study do not support the universal perspective, suggesting that SHRM is the best practice and a source of sustainable competitive advantages in any context. In contrast, this study supported the contingency perspective indicating that a fit between SHRM and PMS contributes to firm performance. Additionally, unlike most previous studies conducted in western settings, this study examined the data from Taiwan, which is a very different cultural, institutional environment (Bae and Lawler, 2000). Consequently, the results further confirmed the validity of the contingency model in an Asian society.

5.1. Implications

Since the fitness of PMS and HRM approach is an important determinant of firm performance, the market environment in which Taiwanese companies operate should be outlined first. Taiwan has made significant efforts to support innovation, which is a critical source of competitive advantage in a knowledge-based economy. These efforts are beneficial to Taiwanese economic development and can also be applied in other similar emerging markets. Perceiving a need to adjust its institutional structure to facilitate innovation, the Taiwanese government moved from a centralized directed style to a more decentralized style that stressed the role of the private sector. Meanwhile, the government pushed ahead with developing National Innovation Systems (NIS). R&D expenditures were increased to approximately \$5,300 millions, or 2 percent of GDP in 1998. This amount ranked 15th in the world. Taiwan is seeking to increase R&D spending to 3 percent of GDP by 2010. Moreover, R&D manpower was increased from 20.4 per 1,000 employees in 1993 to 47.6 in 1998. The number of researchers is expected to reach 75,000 by 2010, with 60 percent possessing a master's or doctoral degree. At the firm level, R&D comprises about 65 percent of total expenditures.

In such an innovative oriented environment, firms need to maintain or enhance their flexibility and competitiveness by effectively fitting their SHRM and PMS. That is, the role of HRM should be transferred from THRM practices into SHRM practices. Besides the implications for businesses on the macro level, several implications for individual practitioners are discussed as follows:

HR practitioners should adjust their mindset and build professional capabilities to face new challenges and not simply continue to pursue technical HR tasks such as recruiting, performance appraisals, training and compensation. Moreover, HR practitioners should spend more time diagnosing firm strategic needs and developing practical solutions for achieving business goals. This study agrees with Powell (1992) who suggested that alignment requires managers to demonstrate higher integrative capacity. This is a valuable and scarce organizational skill. Top management and HRM executive skills that match firm environment are valuable resources contributing to firm competitive advantage.

The role that the HR practitioner plays in the organization indicates how much the firm is concerned with its HR. Setting HR as the first priority, executives should promote the HR professional to the strategic level, meaning making that individual directly involved in critical decision making and business strategy formulation processes from the earliest stage.

SHRM must be involved in designing and implementing a set of internally consistent policies and practices that ensure that firm human capital contributes to achieving firm business goals. Practitioners should carefully consider the “internal fit” among HR practices, as well as the “external fit” between HR practices and the business strategy, and the manner in which they complement and support one another.

Practitioners should formalize the HRM process and policy formulation outcome. In the short term, this involves noting the importance of HRM to internal and external stakeholders, and facilitates understanding and communication among organization members. In the long term, the shared vision automatically sculpts the organizational culture and guides daily operating principles.

In short, coping with the needs of innovation, the degree to which THRM is transformed into SHRM determines how well a firm is able to sustain and enhance growth. This will enable the firm to keep up with the rapid environmental changes associated with globalization.

5.2. Limitations

This study obtained valuable results, however, several limitations should be discussed. The first potential problem relates to the subjective data based on personal respondent judgments. Although Dess and Robinson (1984) addressed that subjective data could be used where objective data were unavailable, to achieve higher reliability in a future study, researchers could consider some secondary data sources as complementary information which could equally represent the concept of firm performance.

Next, a limited number of items were measured for each variable. In future studies, more items could be added to assess the important construct, which could increase the validity of variable measurement. For example, the degree of fit among the HR policies and practices or the involvement of line managers could be added for measuring SHRM implementation.

The third potential problem is the cross-section design resulting in casual ambiguity among SHRM, PMS and firm performance. Significant interaction exists between innovation strategy and SHRM, and without conducting a longitudinal study the performance contribution cannot be ruled out (Wright *et al.*, 2001). However, based on the numerous empirical supports of previous studies (Hartog and Verburg, 2004; Wan *et al.*, 2002; Gratton and Hope-Hailey, 1999; Delery and Doty, 1996; Jackson and Schuler, 1995; Baird and Meshoulam, 1988; Schuler and MacMillan, 1984), SHRM positively impacts firm performance, the causality argued in this study should be more accepted.

5.3 Future direction

Based on the HRM typology of Wright and Boswell (2002), which included a number of HRM practices and levels of analysis, this study focused on the SHRM area, that dealt with multiple HRM practices at the organization level. Future studies could shift the emphasis to single HR practices or to the individual level to narrow the scope to derive more precise evidence regarding the impact of HRM and strategy on firm performance. The strategic HR function choice, e.g. staffing, performance appraisal, training and development and compensation, different levels of performance, e.g. employee outcome, operational outcome, financial or accounting outcome and market-based outcome, organizational structure and other related variables could be included.

Conversely, researchers could extend the scope to present a more complete picture of SHRM, such as other strategic orientations (Miles and Snow, 1984; Porter, 1985), marketing characteristics, culture and other contextual issues. Theoretical models that incorporate contextual constructs could contribute to our understanding of how firms employ SHRM effectively.

We recommend further research on the impact of other unexplored factors to further clarify the determinants of firm performance that have not been addressed here. Such clarification would provide additional valuable guidance to practical professionals.

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